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ABSTRACT OF A REPORT FROM THE COMMISSION TO THE INTERNATIONAL MEDICAL CONGRESS AT PARIS, AUGUST, 1867.

By J. BAXTER UPHAM, M.D., Chairman.

[WE give below an abstract of the Report from the Commission sent out jointly by the Suffolk District and Massachusetts Medical Societies to the International Medical Congress held last summer in Paris. The Report has been duly presented and read before the above-named Societies; but, as it offers many points of interest to the general medical reader, we have thought proper to place it on record, in abbreviated form, in these pages.—EDITOR.]

The sessions of the Congress, as is well known, were held in the large amphitheatre of the School of Medicine in Paris. On the rude benches of this time-honored apartment were assembled, at the opening ceremonials of the First International Medical Congress, some seven or eight hundred delegates, representatives of the medical and surgical profession from almost every part of the civilized world. On a raised dais upon the floor, were gathered the committee of organization—M. Bouillaud as President, Dr. Jacoud, the Secretary General, M. Vidal, Treasurer, and the Under-Secretaries, MM. Bricheteau, Proust, Gintrac and others, with such of the world-wide celebrities of foreign countries as the President had honored with an invitation to be seated at his side. Grouped around the doors which led to this privileged part of the amphitheatre were many of the most prominent among the French physicians whose names are intimately connected with the progress of science at the present day, while all around, in rear of the benches, filling up the halls and ante-rooms, crowding the passage-ways, perched upon architraves and window-seats, in nooks and corners everywhere, were the lookers-on, gentlemen-at-large, medical students, bourgeoisie, and all that watchful throng of idlers who are sure to turn up at whatever is unusual among the ceremonials which form so essential a part of sensational life in Paris. In such a place, and after such fashion, on one of the hottest days of August, the sessions of the Congress began.

The President, M. Bouillaud, now stepped forward and pronounced a formal address of welcome to the assembled delegates.

"The present occasion," he said, "is the carrying out of a desire long since entertained by many of the eminent physicians and surgeons in France." The government had generously proffered its aid, the press had everywhere caught up the idea, and the leading medical minds of Europe given in their adhesion to the plan with alacrity and enthusiasm. He expressed the hope that this would prove the first of a long series of similar occasions, to be held from year to year in the various capitals of the world, in the promotion of the interests of science in general and the profession of medicine in particular. He looked upon the presence of so vast an array of the representatives of our honored profession as a proof of the real and essential progress of civilization in these modern times, and a manifestation of the friendly feelings which now unite the members of the profession to each other in every part of the world. Quoting the saying of one of the old French kings, "the Pyrenees have ceased to exist," he said the proverb might be applied with equal truth to the great ocean which separates the old world from the new; "all barriers to the advance of civilization," he added, "have now ceased to exist, save only the line which divides the domains of civilization from barbarism."

With such appropriate and auspicious words did M. Bouillaud begin his speech of welcome to the assembled delegates, and if he had had the genius and good sense to continue in the same strain to the end, it would have ranked, for eloquence and charity of spirit and broad catholicism, a model of its kind. But he could not resist such an opportunity for the laudation of France

and the French, and, referring to the great and brilliant lights in letters, in science and in art of which Paris is the favored centre, he concluded with the famous quotation from Casimir Delavigne—"La France c'est Paris, et Paris c'est le monde."

This address of M. Bouillaud, despite its somewhat sectional spirit, called forth a tumult of applause, such as roused the ancient dust from the cracks and crannies of the old floors, and, added to the heat and oppressiveness of the pent-up air, well nigh stifled the suffering and panting audience.

M. Bouillaud then made feint to vacate his chair of honor, which he had hitherto held by sufferance only as Chairman of the Bureau of Organization, but was immediately arrested and made President of the International Medical Congress by acclamation. He then proceeded to the further organization of the Congress by the nomination of twelve Vice Presidents, among whom were Virchow of Berlin, Halla of Prague, Palasciano of Naples, Vleminckx of Brussels, Baron Larrey and Ricord of Paris, Bérard of Montpelier, &c. &c. The Secretary-General, Treasurer and the Under-Secretaries of the provisional bureau of organization were recommended for similar posts of honor in the Congress.

All these nominations having been confirmed by the convention, the President announced that the title of Honorary Member of the Congress had been conferred upon the Ministers of Public Instruction of France, Russia, Prussia, Holland, Belgium and others among the nations of Europe, and that among the official representatives sent to the Congress by the respective governments were Profs. Frérichs of Berlin, Seitz of Munich, Crocq of Brussels, Barbosa of Lisbon, &c. &c. Among the scientific societies, both French and Foreign, which had sent delegates to the Congress, were the following:—The Medical Societies of Bordeaux, Lyons, London, Constantinople, the British Medical Association, the Academy of Medicine in Turin, the General Medical Association of Italy, besides representatives from various associations, hospitals, academies and colleges in Norway, Sweden, the Shetland Isles, nearly all the States of Germany, the Italian Provinces, Spain, Portugal, Belgium, Holland, Canada and the United States, the latter being represented by delegates from ten distinct societies.

These formalities and preliminaries having been settled, the following was announced as the programme of subjects to which the attention of the Congress would be called in their order. The time of the convention to be divided into twelve *séances* or sessions, to be holden on the afternoons and evenings of alternate days, at the hours of 2 and 8, P.M., respectively. The topics to be taken up in the order in which they are named, as follows:—

1st. The anatomy, physiology and pathology of tubercle. Tuberculization as it exists in the different countries of the world, and its influence upon mortality in general.

2d. The influence of climate, of race and the various conditions of life upon menstruation in the different countries.

3d. The constitutional disturbances which produce death after surgical operations.

4th. Whether it is possible to propose to the different governments of the world some efficacious method of restraining the spread of venereal disease.

5th. The acclimation of European races in hot countries.

6th. The influence of the alimentation employed in different countries in the production of certain maladies, and, as supplementary to this, the entozoa and entophytes which are developed in man.

These topics were especially assigned to the alternate afternoon sessions, when great strictness was enjoined in keeping the Congress to the points particularly under discussion. During the alternate evening *séances*, papers were read upon subjects somewhat general in their nature, after which the members of the Congress were invited to a free and friendly discussion of the subject immediately before them.

Your Committee cannot now more than very briefly allude to the more important of these essays and discussions, and for their materials in this they confess themselves largely indebted to the careful and minute reports they have gleaned from the various French and other medical and scientific journals published at the time, and to which free access has been given them.

Dr. Villemin, of Paris, now began with a paper on Tubercle and analogous productions, in which he endeavored to prove his favorite theory that gray granulation is brought about by the same morbid process as yellow tubercle or caseous pneumonia, which, in his opinion, represents only the successive phases of one and the same affection—dwelling incidentally but largely on his idea of the inoculability of tubercle. Tuberculosis he considered, with Laennec, as a morbid unity. With regard to the situation of pulmonary tubercle, he now

considers that epithelium is not its seat, but rather the intervesicular connective tissue, which can be proved, he said, with the microscope.

The Secretary, Dr. Jacoud, next read a paper, in the name of Prof. Sangalli, of Padua, in which the Professor insisted on the inflammatory nature of tubercle, and asserted its affinity to the other products of inflammation. Air, he said, was an active stimulus, and softened the tubercle exposed to its influence. He did not admit the value of inoculation of tubercle. As to the alleged antagonism of intermittent fever and tuberculosis, his observation and experience at home, where swamps are abundant, were opposed to this doctrine. He believed that tubercle and scrofula were identical. As to the recent assertion of Prof. Niemeyer, that chronic ulcer of the stomach indicated tuberculosis, he said that in 32 cases of this disease which he had examined he had never found tubercle.

Prof. Crocq, of Brussels, came forward with a lengthy paper on the Etiology of Tubercle, in which he set forth his belief that gray granulation was a product of inflammation particularly assimilated with pus, while the yellow granulations were formed by the same cellules in different degrees of fatty degeneration. He considers the seat of the disease to be in the intervesicular connective tissue, therein agreeing with his predecessor, Dr. Villemin.

The Secretary here read a paper from Prof. Lebert, of Breslau, on the results of the inoculation of different morbid products. Tubercular granulations in the lungs and livers of two dogs had followed the injections of pus into the veins, while sputa and pus from tuberculous subjects introduced under the skin of dogs had occasioned death from pyæmia. He attributes the development of tubercle to some peculiar cellular irritation.

A discussion here arose, in which Drs. Hérard, Villemin, Crocq and others took part, each zealously maintaining his own peculiar views as to the origin and nature of tubercle.

At this stage of the proceedings, when the audience had lapsed into a condition of universal indifference, if not somnolence, at the conflicting abstractions of the learned savans who had thus far occupied the attention of the convention, a foreigner arose and somewhat abruptly demanded permission to make an observation. He was a delegate from Holland, he said, and Dr. Van Lohé his name, and he wished to remark that, in his opinion, this was no International Medical Congress in any sense of the word. He then began to set forth his ideas of what an International Medical Congress ought to be. He believed the time and attention of such an assemblage, gathered from all parts of the world, could be better employed than in listening to elaborate memoirs on questions of abstract theory. He could wish instead, that great principles of broad and international import and practical utility should be brought before them for discussion. The effect was electrical; all eyes were turned towards the speaker; interest and enthusiasm took the place of dulness and indifference; and, forgetting for the moment the dignity of the occasion, the whole assemblage burst forth with applause. Dr. Van Lohé was proceeding to further unfold his views in this matter, when he was interrupted by the President, who in turn stood up, and with evident warmth declared these remarks untimely and out of place; whereupon the excited Hollander was constrained to hold his peace.

At the next afternoon session, Aug. 18th, the Congress resumed the consideration of Tuberculosis.

M. Cornil, of Paris, presented a memoir on the Histology of Phthisis. He supported the views which had previously been set forth by Dr. Hérard as to the structure and formation of tubercle. He regarded the gray granulations as the only true tubercle, and opposed the views of Dr. Sangalli as to their identity with the products of inflammation. In his opinion, the inflammatory process and the development of tuberculous granulations were simultaneous, and he proposed the name of tubercular pneumonia as most appropriate to the whole process.

Dr. Bakody, of Pesth, next gave a brief account of his views on the same subject. He agreed almost precisely with M. Cornil as to the histology of tubercle, which he believed to be a purely heteroplastic production, and wholly distinct from the results of inflammation which so often accompany it. Numerous photographic plates illustrating the microscopical development of tubercle, were handed around among the audience and placed at the disposal of the Congress.

The second, and, to most of the audience, evidently the more interesting part of the question was now reached, viz.:—"Tuberculosis in different countries and its influence on general mortality."

The Secretary here gave the titles and general features of the various memoirs

which had been addressed to the Congress on this subject.

M. Lombard, of Geneva, exhibited a map showing the altitudes of different countries and their influence on tuberculization; the greater the altitude and the rarer (less oxygenized) the atmosphere, the less phthisis. On the same principle, phthisis becomes evidently less frequent as you go from the equator toward the poles. From this he deduced the conclusion that a respiratory diet, as he called it, is to be the future elixir for this great scourge of mankind. These facts, he stated, have been proved in Mexico, in South America, and in Switzerland. Indeed, in the high altitudes of this latter country, he essayed to show by a formidable array of figures that phthisis is utterly unknown.

M. Seco y Valdor, of Madrid, said that Malaga and Pentecosta were beneficial resorts for phthisical patients in Spain. The latter was situated upon an elevation 8,500 feet above the level of the sea.

Per contra, Dr. Jacoud read a paper in the name of Dr. Homan, of Christiania, on the extension of tuberculosis in Norway, from which it appeared that for a period of ten years (1853 to 1863) the number of deaths attributed to consumption were 7,792 in a total of 57,869, or in the ratio of 134 to every 1,000. The disease was also stated to be more frequent in Christiania and Christiansand than in the other parts of the country. He attached less importance to the influence of climate than to other hygienic conditions.

M. Dropay, of Cracow, stated that on the ground of more than thirty years' experience in a most healthy climate, where the soil is fertile and the atmosphere pure and bracing, he felt constrained to add a few words on the subject of tuberculosis. The peasants in Poland, he remarked, are almost free from consumption, while the Jews, who are poor and eat no meat, are so cruelly afflicted with the disease that he predicted their extermination from this cause in a few generations more. To their poverty, deficient and improper food and wretched dwellings, he attributed this fearful prevalence of consumption among that class. Climate, therefore, he argued, was not the only or most important element in the production of the disease.

Dr. Sarraméa, of Bordeaux, in a paper on the prophylaxy of tubercle, took the same ground. Unhealthy lodgings and insufficient food he deemed the principal causes of consumption, especially in young subjects.

Your Committee waited patiently, in the hope of some adequate consideration of the very interesting and elaborate documents prepared by the honored President of this Society, Dr. Bowditch, on the geographical distribution of consumption in Massachusetts, giving the results of his observations and investigations, covering a long series of years, and showing that a residence upon or in the vicinity of a moist or wet soil is one of the chief causes of phthisis; but in this they were disappointed. They had, instead, the mortification of seeing these papers, with the accompanying mass of printed evidence, passed by with simply a reading of their titles by the Secretary-General, and the remark that according to the views of this author tuberculosis does not prevail equally over the State of Massachusetts; that in damp situations it is rife, and is not to be found where the climate is dry. Your Committee would gladly have entered a protest at such cavalier treatment of a document they had taken so much pains to properly place before the Congress; but, in face of the difficulties of a foreign language, and with the fate of M. Van Lohé before their eyes, wisely kept silent.

The subject of tubercle being exhausted, the second question in order was brought before the Congress. This was, "The Influence of Climate, of Race and Conditions of Life on Menstruation in different Countries." On this subject a vast amount of statistics was brought forward, and many interesting papers were read. Among the most important of these was one from Prof. Leudet, on "Menstruation in the City of Rouen and the Department of the Lower Seine," which was received with much favor. He considered the topography of menstruation in all its aspects, treating of the function in detail, with regard to its origin, progress, degree, duration and end, among the women of the city and those of the country, the virtuous and the dissolute, the rich and the poor, those in easy circumstances and the reverse. According to these researches, 14.9 years represent the mean age of first menstruation in Rouen, but various causes often serve to produce a considerable departure from this mean. Licentious habits, over-excitement of the passions among the working people, sometimes provoke a premature menstruation. Misery, constitutional weakness, certain nervous conditions, among other things, delay the arrival of puberty. The duration of the menstrual period is longer among the working class than the unoccupied, and

among the females of the city than those of the country. As to fecundity in Normandy, it is represented by the following figures:—Out of 3,148 children born of 1,207 women, 134 females in easy circumstances gave birth to 271, 153 peasant women to 345, and 920 women of the laboring classes to 2,532 children. The testimony of M. Leudet goes plainly to confirm, upon this point, the sad revelations of MM. Husson and Broca, of the French Academy, in the recent discussion upon the tendency of the population in France.

M. Lagneau, Jr., read a paper upon "Menstruation in various Countries considered in its Ethnological Relations." His researches were based on a statistical table of 15,948 cases, of which the following is a *résumé*, going from north to south:—The mean age at which the first menstruation appears in N. Germany, as established by 4,234 cases, is 16 years 9 months 16 days; England, among 3,759 cases, 14 years 11 months 2 days; France, among 5,661 cases, 15 years 1 month 21 days; Southern Asia, among 1,140 cases, 12 years 11 months 17 days.

M. Joulin, in a paper upon the influence of climate upon menstruation, said that a review of 16,517 cases had led him to the following conclusions:—that the age at which the first menstruation takes place in the torrid zone is the 12th year; in the temperate zone the 15th year; and in the frigid zone the 16th year.

On the subject of prolonged menstrual life in the Shetland Isles, Mr. Robert Cowie remarked that, whereas in the rest of the British dominions, menstruation ceases at the age of 45 or 46, it lasts in the Shetland Isles till the age of 50 to 54—the mean age for the entire British possessions being 48 to 54.

M. Faye, in a communication sent from Norway, said that in that country it occurs at the age of sixteen and ceases at forty-nine.

M. Mayer, of Berlin, in a very elaborate paper, gave the statistics of menstruation in Northern and Central Germany. His observations covered 6000 cases in all, extending over a period from 1853 to 1866. Taking 3000 women of the upper classes and as many among the poor, he establishes the fact that menstruation occurs, with the former, at the age of about 15½ years, and with the latter at 16½ years.

At the evening Séance on the 20th of August, several interesting papers on subjects foreign to the general programme were read and discussed. Among them was one of Dr. Bole, of Castel Sarrazin, upon a species of remittent fever which prevails in that city and the adjoining districts, and which much resembles and is often mistaken for typhoid; for which the sovereign remedy is Quinine. This gave occasion for M. Pantaleoni, of Rome, to speak of the remittent fever which prevails in that city and indeed throughout almost the whole of Italy. It is found in two distinct forms—1st, the gastric, which is generally mild and manageable; 2d, the nervous form, which is ataxic but differs essentially from typhoid in many of its characteristics, as the absence of abdominal symptoms, pain, diarrhœa, &c., and of the rose spots, as well as the anatomical lesions discoverable in typhoid after death. He had in no case found any alteration of Peyer's patches, or any intestinal ulceration whatever. It was somewhat singular that the French soldiers had typhoid fever during the first six months of their stay, and after that would contract nervous fever.

Prof. Crocq, of Brussels, brought forward a paper on the management of néphrite albumineuse, or Bright's disease, in which he advocated the treatment in large and progressive doses with iodide of potassium. He commences with two or three grammes a day, increasing the dose in the ratio of one gramme every two or three days till he reaches a dose of fifteen or even twenty grammes per diem. He sometimes administers, at the same time, the iodide or perchloride of iron, tannin, &c. He makes three distinct periods or stages of the disease:—1st, Congestion; 2d, Exudation; 3d, Fatty transformation. The first two stages only he considered curable. He claimed great success from his treatment, and was not aware that evil consequences had ever ensued.

The exercises of the evening concluded with the exhibition, on the part of Dr. Milliot, of Russia, of a new plan for the exploration of the internal organs of the body by illumination, which he has called Stomatoscopy. The system is founded upon the transparency of the splanchnic cavities. He proposes to render the body transparent by introducing into the œsophagus or rectum a glass tube containing platinum wires connected with some electric apparatus, by means of which the electric light is made to pass through the tube and illuminate the interior of the body. By this means he hopes to investigate the various abdominal viscera as well as the interior of the stomach. The author tried his apparatus upon an unfortunate cat and dog

in the presence of such of the audience as had the good fortune to get near enough to see. Of the success of these experiments we are unable to speak from personal knowledge.

The third evening Séance was opened with the exhibition, by Dr. Brunetti, of Padua, of his new method for the preservation of anatomical and pathological specimens, which had already excited the greatest interest among medical visitors to the Italian section of the Paris Exposition, where the specimens had been displayed. The mechanism of the process, however, had, till now, been kept by M. Brunetti a profound secret. His system has the advantage of perfectly preserving the histological structure of the organs, while the preparations themselves are light and elastic and can be handled without inconvenience.*

[To be continued.]

MINERAL WATERS.

By Charles E. Buckingham, M.D.

We are so frequently annoyed by the persistency of advertisers in thrusting before us notices of mineral waters, which will cure every known disease; and so frequently horrified by the statements of friends who wish them tried by patients; and so frequently amused by the certificates of professional brethren, who recommend them to the public, that I thought, that to look at them, and see what compose them, and how they do good, might be an advantage. Governors and mayors, merchants and clergymen, landlords and doctors, generals and congressmen, gamblers and loafers find their names affixed to the puffs of one or another distinguished spring. Chemists rejoice in the infinitesimal doses of ides and ates and ites, which they are enabled to see their names appended to on printed wrappers, and the various neighborhoods are proud of the cathartic, alterative, diuretic, and antiscrofulous panaceas, which some famous or to-be-famous spring piddles out for the humbugged, who spend money and time for their benefit.

To keep the bowels open is the whole duty of some men, and if a disagreeable salt water will do it for half a dollar a quart, it is better than to do it with pills, at two cents apiece. It is not with them the change of air at Saratoga, nor the pleasant scenery and relaxation at Homburg, nor the pleasant company at Tunbridge or Leamington, nor the unwonted exercise and amusement, at all these places. It is physic and physic alone they look to for relief, and nature's medicine ready prepared for them, by sulphur springs, they consider more advantageous than the same medicine, if they took it without the name blown into the black bottle from the nearest grocer or druggist. So it seems, if they take it when it comes from the spring; but the greater benefit comes from the surroundings and the change, and from these alone. A couple of teaspoonfuls of Epsom or Glauber salts to a quart of water gives as much medicinal virtue as anything it contains, and more than most springs possess, aside from the change of air and scene, which those do not get who buy by the bottle. A quart of pure water, taken a half hour before breakfast, will clear out the bowels or wash out the bladders of most men, within an hour after meals, quite as well as the stinking solutions, known as mineral waters, whether they are impregnated with Virginia brimstone, or the drainings from some celebrated graveyard in Pennsylvania.

Let us look at the contents of the well-known springs. The richest in salts of any mineral water, whose composition I have, is Cheltenham. The wine pint contains in solution, 15 grains of Glauber's salt and 11 grains of Epsom salt. The remainder is principally table salt, to the amount of 50 grains. Common salt is the principal ingredient in almost all the celebrated waters. Take five of the Saratoga springs. The Iodine spring has 23·4 grs. of common salt to the pint; the Pavilion spring a fraction of a grain more; the Union spring 30·4 grs.; the Congress spring 19 grains; and the last and of course the best, the famous Star spring 47·3 grs. The other saline constituents are in amount so small, that they are of little or no consequence, or else, like the iodides, may do as much mischief as good, by producing eruptions, which the patients would otherwise be free from, and which are no indications of previous disease, nor promises of future health.

Take the sulphuretted springs, of which the White Sulphur is a fair specimen. A wine gallon has the common salt, the Epsom salt, a bare trace of iron, and every pint is mixed with ·3 of a cubic inch of sulphuretted hydrogen, which serves to flavor the expirations from one end of the body of its consumer, at least.

Now for the Chalybeates, those which have what I think Sam Weller called the

* For a detailed account of Dr. Brunetti's method, we refer to the interesting paper of Dr. Stearns, which is appended to this report.

flavor of warm flat-irons. Tunbridge has 0·275 of a grain of iron to the pint; Brighton, 1·1 gr.; Cheltenham, 0·8 gr.; Bedford, less than a grain and a half; Sharon, a little more than a quarter of a grain. When we come to the so-called carbonated waters, if we wish the benefit of these, it can all be had at any country tavern in New England, in a daily breakfast of salæratus biscuit.

Of course the profession do not want my advice. Perhaps the clergy, and governors and members of Congress do not. It is therefore offered without asking. If your bowels are not open and your food will not make them so, take a pint or more of *clean* water, thirty minutes before breakfast. If that does not answer the purpose, add to it a pinch of common salt, Epsom salt, or Glauber salt, which you can buy a pound of for a few cents. A run in the country among the hills will do the rest of the work (you may be sure it will do you no harm), and don't make yourselves ridiculous by puffing medicines, of whose good effects you know little, and whose bad effects you are not willing to be responsible for.

POISONING BY BROMIDE OF POTASSIUM.

Mr. Editor,—In your issue of July 16th, I notice an article by Dr. Daniel Burr, of Binghamton, N. Y., in which the gentleman seems unwilling to admit the possibility of any ill effects arising from the "exhibition of 20 grains bromide of potash, twice or thrice repeated, at six hours interval." Since reporting Dr. Taylor's case of poisoning by bromide of potassium, I have had under my charge a soldier afflicted with chronic alcoholism, in whose case, on two separate occasions, I have noticed undoubted symptoms of severe gastric irritation from the administration of only forty grains of the bromide during the twenty-four hours. The salt was dissolved in about six ounces of water and taken at regular intervals (say 2 hours), during the day. No other remedy was given the patient, while the character of the food was light and wholesome. No cause for the symptoms observed could be assigned, other than the inability of a stomach enfeebled by disease to bear the medicine even when largely diluted with water. If Dr. Burr will take the trouble to read my article again carefully, he will notice that the patient had been suffering for some weeks with intermittent fever. I know not whether the Dr. has had acquaintance with malaria. If he has not, I can assure him that one of the most prominent features in this class of diseases is excessive gastric irritation. Doubtless many of your readers who have served in the army can vouch for this from personal experience. This being the case, it is not surprising that the stomach should be in a condition ill able to bear even so innocuous a drug as bromide of potash. With all due respect to Dr. Burr, who is perhaps my senior in years as well as in knowledge, I am compelled to believe that "caution" in a physician is never "needless"; that enantiopathy is ever preferable to homœopathy as a mental regimen. With regard to the Doctor's chemistry I can but charitably imagine a "lapsus pennæ," instead of suggesting a further perusal of Fowne, Stockhardt, and Dalton. I trust that Dr. Taylor will shortly report through your columns *cum propria penna*.

Chandler Balch Braman, M.D.

Brighton, Mass.

Hospital Reports.

BOSTON CITY HOSPITAL.

Notes of Operations during the month of June, 1868. Reported by Frank W. Draper, House Surgeon.

Case I.—*Fibrous Tumor of Abdominal Parietes; Excision.*—C. S., an unmarried female, aged 24, had noticed, about a year before her entrance to hospital, a swelling the size of a walnut in the right iliac fossa. Its development was slow but continuous, and it was attended, at irregular intervals, with dull pain in the lumbar region, and a sense of discomfort in the immediate region of the tumor. The catamenia had always been irregular since puberty.

On entrance, an examination discovered a hard, painless tumor just above Poupart's ligament on the right side. Its size appeared that of an orange. It was of an irregularly conical shape, with its base directed towards the median line, and its point of attachment at the anterior superior spine of the ilium. Examination per vaginam discovered no connection between the tumor and the uterine organs. There was no trouble in micturition, and the bowels were, in general, regular. A moderate leucorrhœal discharge has existed for some time. The general condition of the patient was obviously below par, and the mental depression was, at times, excessive, amounting almost to insanity. She had received treatment previously to her appearance at the City Hospital, consisting chiefly of

iodide of potassium internally, and the local application of tincture of iodine.

After two weeks of rest with careful diet, the patient's condition was considerably improved, but there was no change in the size or appearance of the tumor, and consent was obtained for its removal. The patient having been etherized, Dr. George Derby operated as follows:—A straight primary incision in the direction of the fibres of the external oblique muscle, disclosed the tumor lying beneath the abdominal muscles, and upon the transversalis fascia. Its adhesions were readily separated with the finger, except at the anterior superior spine, where its firmest attachment required division by the scalpel. The size of the tumor thus removed was that of an ordinary billiard-ball, and its structure was distinctly fibrous.

The hæmorrhage attending the opération was not sufficiently profuse to require ligature; and the edges of the wound were at once apposed and held by silk sutures passed deeply.

In forty-eight hours there was developed a circumscribed peritonitis, limited to the region of the wound. The sutures were removed, and hot fomentations, frequently changed, were used. Morphia was administered subcutaneously as often as the pain indicated it. The inflammatory symptoms began to subside in four days, and a healthy action appeared in the wound, the discharge being moderate and of good character. The diet, which, previously, had been carefully regulated, was taken with better relish, although the nausea which, since the operation, had been quite distressing, still continued. There was, however, a satisfactory convalescence, no further complication supervening.

Case II.—*Epithelioma of Tongue; Ligation.* (Service of Dr. Geo. Derby.)—M. K., a healthy female, aged 48 years, appeared at the hospital with the following history. Eight months previously, a small fissure had attracted her attention on the left side of the tongue at about its centre. It had followed no injury, and there was no known exciting cause. It extended gradually in each direction, until, at the time of entrance, there was presented an ulceration with hardened edges and nodulated surface, occupying a space at the side of the tongue, an inch and a quarter long, and in breadth the whole thickness of the tongue. The secretion of saliva was profuse; the growth of the disease had been comparatively rapid during the last two months. It was painful and tender. Microscopical examination revealed nothing absolutely positive, but the cell-growth was obviously abnormally active.

Iodide of potassium was administered in five-grain doses, three times daily, and a gargle of diluted liquor sodæ chlorinatæ was used. In the two weeks following, there was a slight improvement; not enough, however, to warrant the hope that recovery without operative interference would be rapid or certain. The diseased mass was accordingly removed by strangulation with ligatures, after the manner described in Erichsen's Surgery, as applicable in such cases. A large straight glover's needle, armed with a ligature doubled (one thread being dyed), was passed through the tongue clear of the disease at intervals of half an inch, and double loops left above and below. The alternate loops having been divided, the adjacent ends were securely tied, and the whole mass strangulated.

On the following day, there was considerable swelling of the tongue, with soreness of the fauces. The pain was not, however, excessive. Morphia was administered *pro re natâ*. Liquid diet was taken with ease. On the fourth day, all the ligatures but one had separated, and in twenty-four hours more the remaining ligature came away. Convalescence was rapid, and in one month the patient was discharged, nearly well, the ulcerated surface being only of the size of a pea, and cicatrizing well.

Case III.—*Necrosis of Sternum.* (Service of Dr. George Derby.)—W. H. B., a broken-down California miner, aged 48, presented himself at the hospital April 13, 1868, with the statement that, four months before, he had first noticed a small tumor, situated two inches from the top of the sternum, in the median line. Its growth had been attended with most severe lancinating pains darting through both scapulæ and across the thorax in front. There was no positive evidence of syphilitic infection, although it was strongly suspected.

At the time of entrance, the tumor was an inch and a quarter in diameter, and raised about half an inch above the level of the sternum. It was symmetrical, fluctuating and exquisitely tender. There was no redness or tendency to pointing. The patient was much debilitated, and was suffering from the frequent, and sometimes almost intolerable, paroxysms of pain. There had been quite frequent chills at irregular intervals, and the general constitutional disturbance was marked.

During the month following his entrance,

the treatment was mainly palliative and supporting. The chills, pains and general distress continued. Morphia was administered as occasion required. An exploring trocar failed to get any fluid from the tumor, and an exploratory incision with a scalpel was equally unsuccessful. It opened spontaneously, however, in two weeks after the exploration, and ʒiss. of laudable pus was evacuated; at the bottom of the cavity carious bone was easily detected with the probe. The manubrium was disarticulated from the body of the sternum, and the probe passed through the fissure to a depth of about an inch, and rested on soft tissues beneath. The diseased region was freely exposed by a crucial incision, and the affected bone was left to separate. The pains which, before the opening of the abscess, had been very distressing, were now, in great measure, relieved. The process of exfoliation was slow, but, after an interval of six weeks, the necrosed fragments were so far loosened as to admit of their removal. The wound granulated satisfactorily from the bottom, and the patient's condition is now very much improved.

Case IV.—*Ovariotomy.* (Service of Dr. Geo. Derby.)—M. S., a widow, 45 years of age, had had an ovarian tumor three years, commencing on the right side. She was tapped twice, the first time in January last, on which occasion sixteen pints of ovarian fluid were withdrawn, and again three months later with an evacuation of eighteen pints. In two months the abdomen had refilled, and her health was manifestly suffering from the disease. The catamenial discharge was irregular from the outset of the affection, and there was obstinate coincident constipation. The discomfort arising from her condition, and the small prospect of improvement without some operative proceedings, induced her to yield to the unanimous advice of physicians and surgeons in consultation, and consent to the operation for the removal of the diseased ovary.

Careful precautions were taken before and during the case, to prevent the influence of morbific or septic agents on the patient. A room was specially selected for its good ventilation, and was thoroughly fumigated, and disinfected with carbolic acid. New bedding, utensils, and other appliances were used. The room was heated to 90° Fahr., and that temperature was maintained during the operation of ovariotomy, which was performed as follows.

The patient having been etherized, and the bladder evacuated by catheter, a primary incision five inches long was made from a point two inches below the umbilicus, downwards in the median line. On opening the abdominal cavity and passing in a steel sound, quite firm adhesions were found anteriorly and laterally; these were broken down with the hand, which had been previously plunged into an artificial serum composed of sodii chloridi, albuminis, āā ʒi., aquæ Oi.; heated to 98°, and modified by the addition of fifteen drops of carbolic acid. The adhesions having been broken down, the sac was emptied of its contents by means of a large sized trocar, and turned out of the wound. Its pedicle in the right broad ligament was easily reached. Its breadth at the point of ligation was five inches. A double silk ligature was passed through its centre, and the lateral halves were tightly tied. The sac (a unilocular one) was separated by a scalpel, and the divided pedicle returned into the abdominal cavity. A small opening was made through the posterior cul de sac of the vagina, between the divided blades of long forceps, and through this, the ends of the ligatures were brought, and secured outside to the thigh. The abdominal cavity having been washed with the artificial serum, the external wound was closed by silk sutures. A flannel swathe was applied, and the patient was placed in a bed which had been previously warmed.

The hæmorrhage during the operation was very slight, and required no ligatures. The shock was comparatively inconsiderable; the pulse at the close of the operation was 88.

Recovery from ether was sufficiently ready, and complete, but there was considerable distressing vomiting during the first four hours. The patient experienced occasional paroxysms of lancinating pain in the abdominal cavity, referring their origin to the right iliac fossa. She took milk quite freely, without consequent distress.

The first night was passed quietly, without much pain. The pulse ranged from 98 to 108. The bladder was relieved by the catheter as occasion required. There was no tympanites. Milk and sherry wine were administered and taken without trouble.

During the second day, there was considerable pain in the epigastric region, with slight nausea. No opiate had been required since the operation. The external wound was adherent at its edges, and was perfectly dry. All the symptoms were thus far considered favorable, except the continued nausea. There was no decided pain in the lower part of the abdominal cavity.

At midnight of the second night there

was developed a paroxysm of intense pain, throughout the whole abdomen. There was tympanites and great tenderness. Pulse 134. This pain was at once relieved by the injection into the abdominal cavity of one pint of the artificial serum at 98° through the orifice in the vagina. The patient declared distinctly that relief commenced the moment she felt the fluid in her abdomen; she at once fell into a quiet sleep. It was evident, however, that notwithstanding this relief the patient was sinking, and stimulation by enemata of brandy was at once commenced. These produced the desired effect for a time, but presently the patient was unable to retain anything either in the rectum or the stomach, and the decline was rapid. All stimulation was unavailing, and, at the forty-eighth hour after the operation, the patient died.

A partial *post-mortem* examination discovered general peritonitis, the viscera being adherent with recent fibrinous deposits, and especially so at the points of the original adhesion of the sac. The pedicle of the tumor was undisturbed, and appeared as at the time of ligation.

Bibliographical Notices.

Lectures on the Diagnosis and Treatment of Functional Nervous Affections. By C. E. Brown-Sequard, M.D., F.R.S., Fellow of the Royal College of Physicians of London, Member of the National Academy of Sciences (U. S.), &c. Part I. Philadelphia: J. B. Lippincott & Company. 8vo. 1868.

The part of this work now published consists of four lectures, the first of which treats of the causes and diagnosis of functional nervous affections; the second, on the means of suppression or diminution of these causes; the third, on the moral, physical and other modes of treatment of these affections; and the fourth and last lecture, on the remedies used against functional nervous affections, and their modes of action and administration.

All who are interested in the progress of medical science will heartily welcome this new and valuable contribution to our knowledge of functional nervous affections. No observer or writer of the present day has given such an impulse to the pursuit of these studies as Professor Brown-Séquard; nor has any physiologist labored more earnestly by his experiments and writings for the advancement of correct ideas with regard to the nervous system. This work cannot fail, then, to have numerous readers, especially among those conversant with the doctrines already advanced by this writer, and who are constantly observing the verification of these truths in their daily practice.

The vast field for study opened by the writings of Prof. Brown-Séquard, has been abundantly fruitful in results as regards the application of physiology to the practice of medicine. Many hitherto unexplained phenomena of disease are now readily understood by those acquainted with the physiology of the nervous system.

In this review, we propose to point out a few only of the leading features of the work under consideration. Those who are not familiar with the recent advancement made in this interesting department of knowledge, will be astonished at the increased number of functionally distinct nerve-fibres which have been shown to exist by this observer. These serve as conductors of nervous force either towards or from the nervous centres; and are found in the spinal cord, cranial, spinal and sympathetic nerves. Their functions are given in the following table:—

"1. Conductors of impressions of touch.
"2. Conductors of impressions of tickling.
"3. Conductors of impressions of pain.
"4. Conductors of impressions of temperature.
"5. Conductors of impressions of muscular contraction (muscular sense).
"6. Incito-motor conductors.
"7. Incito-nutritive and secretory conductors.
"8. Voluntary motor conductors.
"9. Involuntary motor conductors.
"10. Vaso-motor conductors.
"11. Nutritive and secretory conductors."

Professor Brown-Séquard also thinks that there are other functionally distinct nerve-fibres besides those already enumerated, such as those of hunger, thirst, pressure, voluptuous sensations, &c. These, however, he does not consider as yet quite satisfactorily demonstrated.

Functional nervous affections are shown, in these lectures, to be caused by various kinds of irritation of centripetal nerve-fibres, and by alteration in the quantity or quality of the blood; or the coëxistence of both of these conditions.

The great variety of effects produced by the same kind of irritation of the centripetal nerves, acting on different individuals, is

illustrated by the following quotation: "I will only mention what we know as regards the effects of cold air on persons coming out of a theatre. One may be attacked with a sore throat, a second with ophthalmia, a third with enteritis, a fourth with nephritis, and many others with any other visceral inflammation."

A clear, concise account is given of the means used in suppressing or diminishing the causes of functional nervous affections. These consist in local applications of narcotics, ice, the actual cautery, the section of a nerve, etc.; and the internal use of codeine, narceine, morphine, atropine, valerian, aconite, the chloride of barium, the bromide of potassium, the bromide of ammonium, and turpentine. It is also thought necessary to improve the condition of the blood. The moral treatment of these affections is, we think, very properly insisted on. Some mental or other occupation, or a "*serious aim*," is thought to be of the greatest value in preventing or checking nervous affections, in some persons. Ligatures, pinching, rubbing, circular blisters round a limb, and the alternative application of cold and heat are indicated as means of controlling nervous action. The concluding lecture of the work treats of the administration of remedies, their association, and their antagonism; and is of the utmost interest and practical value to the physician. It is shown that, with certain drugs, the therapeutical effects are increased, while their toxic influences are diminished, when two or more of them are used in conjunction. Thus, the bromide of potassium and the bromide of ammonium, when combined, require less quantities of each to produce their therapeutical effects than when either of them is used alone. Bromism, or the toxic effect of these remedies, is also less liable to occur when they are associated. The physician is justly warned, however, not to rely on the antagonistic effects of belladonna, in cases of opium poisoning. "Notwithstanding," says Brown-Séquard, "the number of cases of apparent cures of poisoning by opium, under treatment by belladonna, I persist, as does also Bouchardat, in recommending that poisoning by opium be fought against by coffee, by keeping the patient awake by active and passive movements, and by making him walk, if this is possible."

Therapeutics and Materia Medica. A Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By Alfred Stille, M.D., Professor of the Theory and Practice of Medicine in the University of Pennsylvania, &c. &c. Third Edition, Revised and Enlarged. In two Vols. 8vo. Pp. 1688. Philadelphia: Henry C. Lea. 1868.

The third edition of this standard work contains new articles on Chromic Acid, Permanganate of Potash, the Sulphites of Soda, Carbolic Acid, Nitrous Oxide, Rhigolene, and the Calabar Bean.

Carried out on much the same plan as Wood's Therapeutics, it is too well known to the profession to require an extended notice. The very thorough and useful way in which it is indexed will commend itself to all readers. We have a classified table of Contents in front, and at the close of the second volume an Index of Medicines and an Index of Therapeutics. ***

Medical and Surgical Journal.

Boston: Thursday, August 13, 1868.

THE NEW DOCTRINE OF PUS-FORMATION.

It is but a few years since the doctrine of Virchow, referring all growth to cell-division and multiplication, and rejecting wholly the old theories of the formation of tissues from a free cytoblastema, has been generally accepted. According to this doctrine pus, or at least its morphological constituents pus-corpuscles, were regarded as arising directly from the proliferation of the previously existing cells of the part in which a purulent collection appeared. While Virchow recognized the exact morphological resemblance between the pus-corpuscle and the white blood-corpuscle, and the impossibility of distinguishing between them by the microscope or by chemical analysis, he yet considered them essentially distinct, and distinguishable by their mode of origin. But, not admitting the possibility of the extravasation of white blood-corpuscles, or the admission of pus-corpuscles into the bloodvessels from without—except in the case where an abscess opens into a vessel—he believed he was correct in deriving the mode of origin of the corpuscles from the position in which they were found.

He says (Cellular Pathology, p. 155), "A pus-corpuscle can be distinguished from a colorless blood-cell by nothing else than its mode of origin. In every case of the sort, the points to be considered are, where the body belongs to, and where its home is. If this prove to be external to the blood, you may safely conclude that it is pus; but if this is not the case, you have to do with blood-cells." And (ibid. p. 113), "it is quite inconceivable that the blood with its corpuscles should be able to pass through the walls in any other way than through a hole in them." The observations of other, and especially more recent investigators, seem however to throw some doubt on the correctness of this theory.

Within the last year Cohnheim, Virchow's assistant at the Pathological Institute of Berlin, has published the result of observations made by him to determine the manner of formation of pus. His first experiments were made upon the cornea of the frog. The centre of the cornea was cauterized with nitrate of silver deeply enough to affect the true corneal tissue. In a few hours a hazy ring was formed at the periphery of the cornea, the parts about the eschar, where there was no trace of pus, still remaining transparent; later, faint striæ showed themselves, radiating from the ring toward the eschar; these increased in distinctness, and finally the parts about the eschar became opaque while the edges gradually cleared. The microscope showed these changes in the transparency of the cornea to be due to the presence of wandering lymph-like corpuscles, changing their shape under the observer's eye, and obscuring the stellate connective-tissue cells proper to the cornea; these last, however, could be still indistinctly seen remaining in their normal positions, and, as the wandering corpuscles moved on toward the injured point, reappeared with distinctness.

These observations overthrew the commonly received idea, promulgated by His and Strube, that the opacity in keratitis is due to proliferation of the connective-tissue cells, and it seemed possible that these wandering corpuscles might have arisen from the multiplication of similar bodies, previously described by Recklinghausen as present in small numbers in the normal cornea. But the fact that all appeared to come from the periphery led Cohnheim to seek their origin from without, and to suspect they might be white blood-corpuscles which had migrated from the vessels. With this idea he made use of the known property of white blood-corpuscles of absorbing finely divided substances, and after injecting aniline-blue into the lymph-sacs of frogs, again excited inflammation in the cornea. Now, on examination, some of the moving corpuscles in the cornea were found to contain the coloring matter, while none was found free in the corneal tissue or contained in its proper cells. The conclusion which he arrived at from these experiments was, that some at least of the pus-corpuscles contained in the cornea had formerly been white blood-corpuscles.

The next step was to discover in what way the blood-corpuscles had escaped from the vessels. Having administered woorara to frogs, so that, although paralysis of the muscles was produced, the circulation was not interfered with, the abdomen was opened, and the mesentery, drawn out and fastened on the slide of the microscope, kept moist with artificial serum. The exposure to the air excited inflammation, and the following changes were observed. First, the arteries dilated; afterward the veins, but to a greater degree; the blood current slackened, and the white blood-corpuscles were seen to collect in large numbers toward the wall of the vein, while the red globules moved on in the centre; in some vessels the blood oscillated to and fro, and in some became stationary; in fine, the well known phenomena of inflammation ensued. But, moreover, some of the white corpuscles seemed to become attached to the walls of the veins; after a time an apparent projection outward of the wall, of the size of a corpuscle, appeared at the point of contact; the projection increased, and then became pediculated, and soon white blood-corpuscles were seen free outside of the vessels. The same changes took place in the capillaries, and the vessels after a time became surrounded by masses of free white corpuscles, the cellular elements of the tissues outside the vessels at the same time appearing unchanged.

These experiments were repeated on the mesentery of rabbits and other animals with much the same results, and the same process was seen to take place on the web of the frog's foot after tying the femoral vein, but in the latter case some of the red globules also escaped, probably owing to the increased pressure.

As regards the manner of escape of the white corpuscles, Cohnheim thinks he has discovered the existence of minute openings between the epithelial cells lining the smaller vessels, similar to the stomata which have been proved to exist in the smaller lymphatics, and that, once passed through these openings, the corpuscles find their way along the spaces existing in the connective tissue which is present in the other layers of the walls of the vessels, moving by power of the peculiar, vital, amœboid properties they have been shown to possess.

From these experiments Cohnheim concludes that the pus-corpuscles are white blood-corpuscles which have migrated from the vessels, and in farther support of this theory calls attention to the fact that cartilage, the only tissue in the body in which there are no vessels and in which spaces for the movement of the corpuscles do not exist, never gives rise to true pus-formation.

While Cohnheim undoubtedly arrived at his theory by independent investigation, it is certainly interesting to observe, in support of the adage "there is nothing new under the sun," that Dr. Augustus Waller published in the Philosophical Magazine, October and November, 1846, observations and conclusions nearly identical with his.

Dr. Waller's observations were made on the under surface of the tongue of the frog, which was drawn out and extended by pins fastened to its edges. He states, p. 285, "Recent observations have enabled me to decide the much agitated question as to the formation of pus and its origin from the extravasation of the colorless or spherical corpuscles from the capillaries." Again, p. 399, "The engorged vessels became rapidly very irregular in their calibre, by the formation of numerous indentations or concavities throughout their length. Opposite these concavities were found one or more corpuscles which had escaped. * * * In some instances the manner in which the corpuscle escaped from the interior of the tube could be distinctly followed; that part of the tube in contact with the external side of the corpuscle gradually disappeared, and at nearly the same time might be seen the formation of a distinct line of demarcation between the inner segment of the corpuscle and the fluid parts of the blood in contact with it. Any slight agitation then was capable of disengaging the corpuscle from the vessel to which it was now external, and in its place a concave depression remained, which appeared sufficiently protected by some membrane, as to oppose effectually the exit of the discs and the fluid parts of the blood. In rare instances the blood-discs and corpuscles might be seen separate and distinct within the tube, while occasionally some of the latter were seen to escape through the sides: the contents of the latter oscillating synchronously with the increased action of the blood in the surrounding vessels."

Only in the theory of the method of escape of the corpuscles does Waller differ from Cohnheim. With regard to this, he says, "It cannot be referred to the influence of vitality, as it is observed likewise to take place after death. It may be surmised, either that the corpuscle, after remaining a certain time in contact with the vessel, gives off by exudation from within itself some substance possessing a solvent power over the vessel, or that the solution of the vessel takes place in virtue of some of those molecular actions which arise from the contact of two bodies; actions which are now known as exerting such extensive influence in digestion, and are referred to what is termed the catalytic power." The subsequent closure of the aperture, preventing the escape of the remaining contents of the vessel, he refers to some reparative power existing in the blood.

Cohnheim's experiments have been repeated and their results confirmed by other observers, both in Germany and England, during the last few months. If his conclusions shall be received as correct, a decided change must be made in our present ideas with regard to the pathology of some forms

at least of inflammation, and the lymphatic glands will hereafter take the place in the theory of the formation of pus which is now occupied by the cells of epithelium and connective tissue, to the proliferation of which Virchow refers the formation of all pus-corpuscles; while it is not improbable that they will give rise to other important changes in our views of pathology.

These conclusions must, however, be strengthened by further long-continued and careful observation and experiment, before they can be generally accepted. They have already met with opposition as well as support. One of the arguments brought forward against them is the occasional extremely rapid increase in the number of pus-corpuscles in an abscess, while the number of white blood-corpuscles in the blood is said to be small. In fact, however, we know but little about the whole number of white blood-corpuscles in the blood, and it is at least certain that, in many diseases most apt to be attended by the formation of pus, the number of white corpuscles is increased. That the blood furnished the pus-corpuscles ready formed would seem to be as simple an explanation, as that it furnished the material for their formation to the cells of the part. The only difference in that respect is, that we are familiar with the one explanation and not with the other. W.

Life Insurance.—We are requested to call the attention of our readers to the advertisement of the National Life Insurance Company of the United States of America, which appears in this number, a corporation chartered by Congress and presenting some new features in its mode of insuring lives. Being newly organized it will require the services of competent and well educated men to act as examiners in every section of the country. We are informed that applications for the position will be received by the Medical Director at the Branch Office in Philadelphia, from regularly educated physicians and those skilled in physical diagnosis.

On Tonility of Sounds upon Percussion in Diseases of the Chest.—Dr. Paul Niemeyer, of Magdebourg, insists very much upon the differences of tone (*tonilité*) of the sounds upon percussion in diseases of the chest. Dr. Woillz, of Paris, studied the tonility of sounds some two years ago, but Dr. Niemeyer pretends to have studied the phenomena more thoroughly. He lays down these principles—that the tonility of the sounds is modified on the one hand according to the longitudinal diameter of the column of air; on the other hand, according to the transverse diameter of the opening. These principles are illustrated by percussing on the cheek whilst one closes, opens and extends the mouth with air, and stretches out or draws in the lips. etc.; also, and better, by percussing over the opening of a glass cylinder upon a pleximeter, held within two to ten millimetres from the opening. By pouring water, more or less, into the vessel, the longitudinal diameter of the cylinder is changed, and by closing the opening of the cylinder, more or less, with a flat piece of window glass, the diameter of the opening is also varied; and in both cases the tonility will be manifestly modified.

In applying this knowledge to the diseases of the lungs, we arrive at the following conclusions:

The diameter of the opening governs the character of the tonility in all cases where there is, either in the lung or in the pleura, a cavity communicating directly with the exterior, through a bronchus, especially: 1st, in the case of tuberculous caverns situated superficially, and opening into a bronchus of the first or second order; 2d, in the case of a pneumo-thorax, communicating with the exterior by a fistulous opening, or even through a perforated cavern. In both cases the change in the tonility will be evident when the patient will alternately open and close his mouth, provided he has fully expectorated previously. If there is no change in the tonility, it may be diagnosed that the cavity does not communicate with the exterior. *The longitudinal diameter of the column of air* governs the tonility in all cases of a pathological cavity without communication with the exterior, which can be diagnosed at once when the tonility remains the same, though the patient opens or closes his mouth. On the contrary, the above change will be observed when the patient will cause the level of the liquid contained in the cavity to vary, by *lying down and rising alternately.*

In cases of pneumo-thorax, this change of tonility of the metallic phenomena, according to the position of the patient, is one of the most striking and constant signs. The tonility is more acute in the horizontal position, and more grave in the vertical, which is accounted for, on the one hand, by acoustic conditions of the cavity, and on

the other by the retraction of the diaphragm, which thus diminishes the longitudinal diameter of the column of air.

These variations of the tonility may also serve to estimate the quantity of gas in the cavity of the pneumo-thorax, and to recognize the divers compartments of the cavity, each of which have a peculiar tone.—*Gazette Medicale.—N. O. Med. Journal.*

Dr. Crum Brown's Papers on Chemical Constitution and its Relation to Physiological Action.—The investigations of the above gentleman and Dr. Frazer are intended to open a most important field of inquiry, but one of which there is none so difficult or so hidden in its manifestations. The mode in which these gentlemen proceed is the following:—They take a certain class of compounds the physiological action of which is well-marked (strychnia, brucia, thebaia, morphia, codeia). These alkaloids contain a similarly situated atom of nitrogen, which is capable of being changed as regards its atomicity or relation. The salts of these alkaloids do not differ from the alkaloids themselves, because the combination is not of a very stable kind, and because the acid produces no particular molecular change in the alkaloid itself. They therefore combined the strychnia with methyl, and produced a stable compound—methyl-strychnium, first studied by How and Stahlsmidt. Large doses of thirty grains of the methyl-strychnium salt produces no action upon rabbits when administered by the stomach; fifteen grains killed, however, when injected by the skin. But instead of violent tetanic convulsions, a condition of general paralysis is observed.

On examination, paralysis was proved to have been produced by the destruction of the power of the terminations of the motor nerves to receive the stimulus and transmit it to the muscles.

Strychnia produces tetanic convulsions by exciting the nerve-centres in the spinal cord; but the methyl compound produces paralysis, and does so in a very remarkable way.

The same change is produced in every alkaloid examined which has an action like that of strychnia.—*Med. Press and Circular.*

Large Malignant Tumor of Breast; Removal; Recovery.—R. Smith, æt. 49, was admitted into hospital in March, 1868. He had the aspect of rude health, having a florid complexion and cheerful expression of countenance, and was remarkably large, weighing 322 lbs. He was suffering from a large tumor in his right breast, which had been growing about fourteen months; it had at that time attained the dimensions of a child's head, and had ulcerated in one place, from which he had some severe attacks of hæmorrhage. After remaining in hospital about a week, the tumor was removed by an oval incision—it weighed three and a half lbs., and on microscopic examination was found to be distinctly cancerous in its nature. The wound healed rapidly, and the man left hospital three weeks after the operation. This case has some interest in showing that the possession of a robust frame and plethoric habit of body confers no immunity from the development of malignant disease. Many instances have recently occurred in this institution, where cancer has made its appearance in individuals apparently of the strongest and most healthy constitution.—*Ibid.*

Death Certificates.—Another case (the third lately) has just occurred in Liverpool, which shows the inconvenience to which a medical man may render himself liable by signing a death certificate, according to the recognized form, without first seeing the body. On the 4th inst., application was made to Dr. De Louche, a recently appointed district medical officer, for a certificate touching the death of a little boy whom he had been attending, and whose case he certainly regarded as one likely to terminate fatally. Instead, however, of acceding to the application, he took the precaution of first visiting the house, where he found the child not only living, but to all appearance likely to live for hours, if not days. The coroner, before whose notice the matter was brought by Dr. De Louche, regarded the case as very important, from its showing the necessity of a certificate never being given by either medical gentlemen or by the court over which he presided, without the dead body of the person to whom it relates being seen. Had the certificate been granted, and an improper use been made of it, the inconvenience to the medical man might have been most serious.—*Medical Times and Gazette.*

A New Asylum.—The trustees of Turner's Retreat, at Norwich, Ct., a State asylum for the cure of inebriates and opium-eaters, organized recently at Wilton, where the institution is located, and elected for President Dr. J. Edward Turner, the founder of the first inebriate asylum in the world. —*New York Medical Record.*

Selections and Medical Items.

TWO CASES OF LOSS OF THE EPIGLOTTIS. By HERMAN BEIGEL.—Cases in which the epiglottis or a portion of it has been lost in consequence of inflammatory affections of the larynx, followed by necrosis of the arythenoid or other cartilages, have not unfrequently been observed. The symptoms in such cases are generally very distressing, so as to necessitate even tracheotomy. If cure is effected, loss of speech or other functional defects of the larynx often remain.

But I have not been able to find records of cases in which destruction of the epiglottis has taken place in such a subacute manner that the patients have experienced neither pain nor loss of speech—in fact, that they were not at all aware of the deficiency. Both cases which I am about to describe were observed in tuberculous patients under my treatment at the Metropolitan Free Hospital.

Case 1.—Elizabeth C——, aged forty-seven, married, but without issue, has been subject to tubercular disease for many years, cough, copious expectoration, and pain in the left side of the chest. The physical signs are those of an advanced stage of tuberculosis, particularly in the left lung. Pain in the throat, hoarseness, or any inconvenience in the larynx has never existed.

When examined by means of the laryngoscope, the larynx was found in a state represented in the accompanying wood cut. The false vocal cords rather thick and puffy; the true vocal cords almost normal; action of the muscles of the larynx energetic; the cartilages, with the exception of the epiglottis, intact. The epiglottis perfectly destroyed; only one larger and a few minute shreds of it left; the latter neither inflamed nor ulcerated, thus showing that the process of destruction has terminated long ago. The patient speaks with but a very slight touch of hoarseness, and has never experienced, during deglutition, any food going into the larynx instead of into the œsophagus.

The diagnosis could very easily be made, but there was no cause whatever for interfering with the larynx.

Case 2. ——. The second case was that of a man thirty-eight years of age, who had suffered for many years from hereditary tuberculosis. The state of the larynx was similar to that of the former patient. The destruction proceeded likewise without causing pain or any inconvenience to the patient; and the loss of the epiglottis was still more complete than in the former case, leaving only small granular remnants. But whilst the patient was under my care one such small granule became inflamed, enlarged to the size of a pea, and caused great pain, particularly when the patient was speaking or swallowing. When I viewed it in the laryngoscope, it exhibited a yellow little spot, at its most prominent part, indicating its containing pus. Consequently, under the guidance of the laryngeal mirror, I lanced it with an appropriate lancet, and a drop of pus having escaped, the pain at once subsided; and after a few days the granule assumed a healthy appearance.—*Lancet.*

CYANIDE OF POTASSIUM.—A curious, and at the same time interesting fact has recently been made known by the scientific journals. Cyanide of potassium, much used by photographers, is an exceedingly dangerous poison; and they will be glad to hear that the painful ulcers and other bad symptoms which it produces may be effectually prevented by rubbing the hands when soiled with it with a mixture of proto-sulphate of iron, reduced to a very fine powder, and linseed oil.

MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic; 10, A.M., Medical Lecture. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Medical Lecture. 9 to 11, A.M., Boston Dispensary. 10-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10 A.M., Massachusetts General Hospital Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 11 A.M., Massachusetts General Hospital Clinical Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—Communications accepted:—Laceration of the Spleen in Pregnancy—Case of Poisoning by Sulphate of Atropine.

BOOKS AND PAMPHLETS RECEIVED.—Microscopical Examinations of Blood, and Vegetations found in Variola, Vaccina, and Typhoid Fever. By J. H. Salisbury, M.D. New York: Moorhead, Bond & Co.—Medical Communications, with the Proceedings of the Seventy-Sixth Annual Convention of the Connecticut Medical Society, held May 27th and 28th, 1868.—The Anatomy and Histology of the Human Eye. By A. Metz, M.D. Philadelphia: Med. and Surg. Reporter Office.—Annual Address of the Retiring President of the Ohio State Medical Society, Edw. B. Stevens, M.D.—Dental Materia Medica. Compiled by James W. White, M.D., Philadelphia.—On Bartholow and Pro's "Liberal Use" of Prize Essays; or Prize-Essaying made easy and taught in a Single Lesson. By Geo. C. Blackman, M.D., Prof., &c., Cincinnati, O.

MARRIED,—At Cape Elizabeth Ferry, Me., Wm. E. Tarbell, M.D., of Vassalboro', Me., to Miss Maria P. Oliver, of Boston, Mass.

DIED,—At Valparaiso, Chili, March 11, 1868, of coxalgia, William Pitt, M.D., LL.B., formerly of Boston, aged about 50 years.—In New York city, on the 15th of July, Dr. William T. G. Morton, of this city—well known in the medical world for his claims as discoverer of the anæsthetic properties of sulphuric ether.

DEATHS IN BOSTON for the week ending Saturday noon, August 8th, 191. Males, 94—Females, 97.—Abscess, 1—accident, 4—anæmia, 1—apoplexy, 1—asthma, 1—disease of the bladder, 1—inflammation of the bowels, 2—congestion of the brain, 2—disease of the brain, 3—inflammation of the brain, 1—bronchitis, 1—cancer, 1—cholera, 1—cholera infantum, 71—cholera morbus, 4—consumption, 13—convulsions, 3—diarrhœa, 6—diphtheria, 1—dropsy, 1—dropsy of the brain, 2—drowned, 2—dysentery, 8—fever, 1—bilious remittent fever, 1—scarlet fever, 1—typhoid fever, 5—yellow fever, 1—gangrene, 1—gastritis, 1—hæmorrhage, 1—disease of the heart, 2—hip disease, 1—homicide, 1—infantile disease, 6—disease of the kidneys, 3—disease of the liver, 1—inflammation of the lungs, 7—marasmus, 5—measles, 3—old age, 4—paralysis, 2—premature birth, 3—puerperal disease, 1—teething, 1—whooping cough, 1—unknown, 7.

Under 5 years of age, 127—between 5 and 20 years, 12—between 20 and 40 years, 26—between 40 and 60 years, 12—above 60 years, 14. Born in the United States, 155—Ireland, 23—other places, 3.